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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,474	01/18/2002	Sundeeep Chandhoke	5150-54200	2749
35690	7590	04/04/2005	EXAMINER	
MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C. P.O. BOX 398 AUSTIN, TX 78767-0398			PILLAI, NAMITHA	
			ART UNIT	PAPER NUMBER
			2173	

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,474

Applicant(s)

CHANDHOKE ET AL.

Examiner

Namitha Pillai

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 10/21/02 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. The information disclosure statement further does not state that these cited non-patent literature publications have been included in the parent case.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-13, 15-21 and 23-44 rejected under 35 U.S.C. 102(b) as being clearly anticipated by “Compumotor, Motion Builder Start-Up Guide & Tutorial”, herein referred to as Compumotor.

Referring to claims 1, 35 and 44, Compumotor discloses a computer-implemented method for creating a motion control sequence (page 2, lines 2-5). Compumotor discloses displaying a graphical user interface (GUI) that provides GUI access to a set of motion control operations and receiving user input to the graphical user interface specifying the sequence of motion control operations (page 1, lines 2-9). Compumotor discloses automatically generating a program implementing the specified sequence of motion control operations (page 2, lines 2-9 and

Art Unit: 2173

pages 7-12), wherein it is clear that the sequence of motions created represents a program that is automatically generated representing the motion functions. Compumotor also discloses performing the specified sequence of motion control operations (page 8, lines 6-8).

Referring to claims 2 and 36, Compumotor discloses storing information representing the specified sequence of motion control operations in a data structure in response to said receiving user input specifying the sequence of motion control operations (page 6, lines 5-6), wherein the flowchart would represent a data structure.

Referring to claims 3, 30 and 37, Compumotor discloses that the information does not comprise programming language code (page 6, lines 1-3), wherein the information is represented as icons and not programming language code.

Referring to claim 4, Compumotor discloses accessing the information representing the sequence of motion control operations to determine program instructions corresponding to motion control operations in the sequence and executing the program instructions (page 8, lines 2-8 and lines 19-25), wherein the program instructions are determined by generating the build file and wherein this build file will be executed to run the main program.

Referring to claims 5 and 39, Compumotor discloses receiving user input to the graphical user interface specifying parameter values for one or more motion control operations in the sequence (page 6, lines 7-8). Compumotor also discloses storing the parameter values and executing software routines corresponding to motion control operations in the sequence (page 8, lines 19-25), wherein the parameter information is stored in the program files. Compumotor also discloses passing the parameter values to the software routines for execution (page 80, lines 11-

Art Unit: 2173

16), wherein this example discloses how parameters are stored and used for functions during execution.

Referring to claims 6 and 40, Compumotor discloses specifying a desired sequence of motion control operations does not include receiving user input specifying programming language code to implement the sequence of motion control operations (page 2, lines 2-5), wherein user input specifies icons and not programming language code.

Referring to claim 7, Compumotor discloses that the motion control sequence is operable to control motion of a device (page 69, line 24).

Referring to claims 8 and 41, Compumotor discloses that the motion control sequence is operable to control a device to move an object (page 69, line 24).

Referring to claim 9, Compumotor discloses executing the sequence of motion control operations by performing each motion control operation in the sequence to control motion of a device (page 2, lines 2-5 and page 68, line 24-29), wherein the objectives list the functions that will be carried out with the icons for motion control of the saw blade device.

Referring to claim 10, Compumotor discloses creating program instructions executable to perform the specified sequence of motion control operations and performing the specified sequence of motion control operations comprises executing the program instructions (page 8, lines 6-8 and lines 22-25).

Referring to claim 11, Compumotor discloses receiving user input to the graphical user interface for configuring one or more of the motion control operations in the sequence and for each motion control operation, configuring the motion control operation affects the motion control which the operation is operable to perform (page 79, lines 1-11), wherein configuring the

Art Unit: 2173

parameters of the motion control operations affects the performance of the motion control as shown in the condition statement variables shown.

Referring to claim 12, Compumotor discloses receiving user input to the graphical user interface for configuring one or more of the motion control operations in the sequence does not include receiving user input specifying programming language code to configure the motion control operations (page 79, lines 1-11), wherein configuring includes specifying parameters in a dialog window and does not involve programming language code.

Referring to claim 13, Compumotor discloses for each motion control operation to be configured, displaying a graphical panel including graphical user interface elements for setting properties of the motion control operation and receiving user input to the graphical panel to set one or more properties of the motion control operation, as seen on the Figures of page 75.

Referring to claim 15, Compumotor discloses receiving user input requesting to configure a first motion control operation and displaying a graphical panel for configuring the first motion control operation in response to the request (page 75, lines 1-2 and top Figure).

Referring to claim 16, Compumotor discloses that the graphical user interface includes an area which visually represents the motion control operations in the sequence and for each motion control operation added to the sequence, updating the area visually representing the motion control operations in the sequence to illustrate the added motion control operation (page 78, top Figure and lines 5-7).

Referring to claim 17, Compumotor discloses that the area visually representing the motion control operations in the sequence displays a plurality of icons, wherein each icon visually indicates one of the motion control operations in the sequence and updating the area

Art Unit: 2173

visually representing the motion control operations in the sequence to illustrate the added motion control operation comprises displaying a new icon to visually indicate the added motion control operation (page 74, lines 4-9 and Figures).

Referring to claim 18, Compumotor discloses that the graphical user interface displays a plurality of buttons, wherein each button is operable to add a new motion control operation to the sequence in response to user input and receiving user input to the graphical user interface specifying the sequence of motion control operations comprises receiving user input to the plurality of buttons to create the sequence of motion control operations, as shown by the button panel on the side of the interface shown in the Figure of page 74, wherein it shown that a user selects one of these buttons to choose a motion control operation that is to be part of the sequence.

Referring to claim 19, Compumotor discloses that the set of motion control operations includes a straight line move operation, an arc move operation and a contoured move operation (page 80, lines 2-8).

Referring to claim 20, Compumotor discloses displaying one or more views of the sequence of motion control operations on the graphical user interface, wherein the one or more views graphically preview the cumulative movement specified by the sequence of motion control operations, as seen on the top Figure of page 87.

Referring to claim 21, Compumotor discloses that the one or more views includes a two-dimensional position view for viewing a two-dimensional display of position data of the sequence in one or more of an XY, YZ, or ZX plane, as seen in the bottom Figure of page 80.

Referring to claim 23, Compumotor discloses automatically generating a program implementing the specified sequence of motion control operations includes programmatically generating a graphical program operable to perform the specified sequence of motion control operations and executing the graphical program to perform the specified sequence of motion control operations (page 6, lines 2-6 and page 8, lines 6-8).

Referring to claim 24, Compumotor discloses that the graphical program comprises a plurality of interconnected nodes that visually indicate functionality of the graphical program, as seen on top figure of page 87.

Referring to claim 25, Compumotor discloses that the graphical program comprises a graphical data flow program, as seen on top figure of page 87.

Referring to claim 26, Compumotor discloses automatically generating a program implementing the specified sequence of motion control operations includes programmatically generating a text-based program operable to perform the specified sequence of motion control operations and executing the text-based program to perform the specified sequence of motion control operations (page 90, lines 16-18, the "Download" window and page 91, lines 1-2).

Referring to claim 27, Compumotor discloses receiving a request from a computer program to execute the sequence of motion control operations, wherein the computer program was not used to create the sequence of motion control operations and executing the specified sequence of motion control operations in response to the request (page 90 and 91), wherein the computer program is the controller to which the operations are downloaded for the execution of the specified sequence of motion control operations, wherein the sequence of motion operations were not created in this controller.

Referring to claim 28, Compumotor discloses programmatically converting the sequence of motion control operations to a format usable for configuring an embedded device to perform the sequence of motion control operations and configuring the embedded device to perform the sequence of motion control operations using the format (page 90 and 91), wherein the sequence of operations are created into a code format to be usable in the controller and downloaded into the controller to perform the sequence of motion control operations in code format.

Referring to claim 29, Compumotor discloses a computer-implemented method for creating a motion control sequence (page 2, lines 2-5). Compumotor discloses displaying a graphical user interface (GUI) that provides GUI access to a set of motion control operations and receiving user input to the graphical user interface specifying the sequence of motion control operations (page 1, lines 2-9). Compumotor discloses automatically generating a program implementing the specified sequence of motion control operations (page 2, lines 2-9 and pages 7-12), wherein it is clear that the sequence of motions created represents a program that is automatically generated representing the motion functions. Compumotor discloses storing information representing the specified sequence of motion control operations in a data structure in response to said receiving user input specifying the sequence of motion control operations (page 6, lines 5-6), wherein the flowchart would represent a data structure.

Referring to claim 32, Compumotor discloses a computer-implemented method for creating a motion control prototype (page 2, lines 2-5). Compumotor discloses receiving user input specifying a desired sequence of motion control operations (page 1, lines 2-9). Compumotor discloses recording the specified sequence of motion control operations in a data structure and wherein the specified sequence of motion control operations comprises the motion

control prototype; and wherein the motion control prototype is useable to control a motion device (page 2, lines 2-9 and page 69, lines 24-30). Compumotor discloses automatically generating a program implementing the specified sequence of motion control operations (page 2, lines 2-9 and pages 7-12), wherein it is clear that the sequence of motions created represents a program that is automatically generated representing the motion functions.

Referring to claim 33, Compumotor discloses performing the specified sequence of motion control operations to control the motion device (page 91, lines 4-5).

Referring to claim 34, Compumotor discloses displaying a set of motion control operations, wherein the user input comprises user input selecting two or more motion control operations from the set of motion control operations, as seen in top figure of page 74.

Referring to claim 38, Compumotor discloses accessing the information representing the sequence of motion control operations to determine program instructions corresponding to motion control operations in the sequence (page 8, lines 2-8 and lines 19-25) and executing the program instructions, wherein performing the specified sequence of motion control operations comprises executing the program instructions (page 91, lines 2-5).

Referring to claim 42, Compumotor discloses a system for creating a motion control sequence (page 2, lines 2-5). Compumotor discloses a processor, a memory storing program instructions, a display device and wherein the processor is operable to execute the program instructions stored in the memory (page 2, lines 2-3 and lines 22-24). Compumotor discloses a computer-implemented method for creating a motion control sequence (page 2, lines 2-5). Compumotor discloses displaying a graphical user interface (GUI) that provides GUI access to a set of motion control operations and receiving user input to the graphical user interface

Art Unit: 2173

specifying the sequence of motion control operations (page 1, lines 2-9). Compumotor discloses automatically generating a program implementing the specified sequence of motion control operations (page 2, lines 2-9 and pages 7-12), wherein it is clear that the sequence of motions created represents a program that is automatically generated representing the motion functions. Compumotor also discloses performing the specified sequence of motion control operations (page 8, lines 6-8).

Referring to claim 43, Compumotor discloses a motion control device and wherein the program instructions execute the specified sequence of motion control operations comprises the processor executing the specified sequence of motion control operations to control the motion control device (page 91, lines 1-7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Compumotor.

Referring to claim 14, Compumotor does not disclose automatically displaying the graphical panel in response to adding the motion control operation to the sequence. It would have been obvious for one skilled in the art at the time of the invention to automatically display the graphical panel in response to adding the motion control. As shown by the example tutorial in Compumotor, the step of adding a motion control operation is most often followed with the

Art Unit: 2173

step of selecting the dialog window to be displayed, wherein this redundant step can be avoided on a regular basis by simply automatically displaying the graphical panel. Compumotor teaches the main components of the feature by allowing for the addition of motion control operations and the displaying of a graphical panel to configure these operations. In order to provide a user interface with user satisfaction and to avoid redundant steps, it would be obvious to take the features already taught by Compumotor and to make the one step of displaying the panel automatically. Hence, it would have been obvious for one skilled in the art, at the time of the invention to automatically display the graphical panel in response to adding the motion control.

Referring to claim 22, Compumotor does not disclose that the one or more views include a three-dimensional position view for viewing a three-dimensional display of position data of the sequence. It would have been obvious for one skilled in the art at the time of the invention to implement a three-dimensional position view. Compumotor already discloses presenting a two dimensional view, wherein a three-dimensional view would further give a more concise picture of the components displayed. Compumotor has disclosed the main features of motion control operation creation and display in two dimensions, wherein it would have been obvious to further this step to a three dimension display in order to give a clearer and more comprehensive view of the data that is to be displayed. Hence, it would have been obvious for one skilled in the art, at the time of the invention to implement a three-dimensional position view.

Response to Claim Changes

4. The Examiner acknowledges Applicant's amendments to claims 1, 23, 26, 29, 32, 35, 42 and 44 to better specify the claimed invention. However, all claims are rejected as being previously disclosed.

Response to Arguments

5. Applicant's arguments filed 12/28/04 have been fully considered but they are not persuasive.

With respect to Applicant's arguments that Compumotor does not disclose automatically generating a program implementing the specified sequence of motion control operations. Compumotor discloses choosing functions to be included in a generated program by picking icons and placing them in a flowchart. This flowchart represents data that is used to create the actual program, wherein this actual program would consist of code used as instructions to carry out the functions chosen through the icons. Therefore the automatically generated program is the code that is automatically generated as a result of building the flowchart and running the program. These steps may be carried out manually but nonetheless, the user not creating the actual source code and the creation of the source code done through an automation process allows for the interpretation of the automatic generation of a program, wherein this is a primary objective of the disclosure.

With respect to Applicant's arguments that the current invention relies on methods including the user specifying the motion control sequence and a program automatically generating the implemented specified sequence. Compumotor by presenting manual steps are referring to the same features as shown in the present invention, wherein user manipulation is used to specify the motion control sequence but the actual generation of source code that would represent this control sequence is done automatically.

With respect to Applicant's arguments that there is no proper motivation for the obvious rejections made in combination with Compumotor. Compumotor carries out a step that is being

Art Unit: 2173

disclosed in the claims, wherein Compumotor does display data that is representative of a graphical panel and data that can be viewed in a three dimensional manner. These are simple features that as disclosed in the claims point out general features that would be obvious in a system such as that disclosed in Compumotor.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington D.C. 20231. If applicant desires to fax a response, central FAX number (703) 872-9306 may be used. NOTE: A Request for Continuation (Rule 60 or 62) cannot be faxed. Please label "PROPOSED" or "DRAFT" for informal facsimile communications. For after final responses, please label "AFTER FINAL" or "EXPEDITED PROCEDURE" on the document. Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Art Unit: 2173

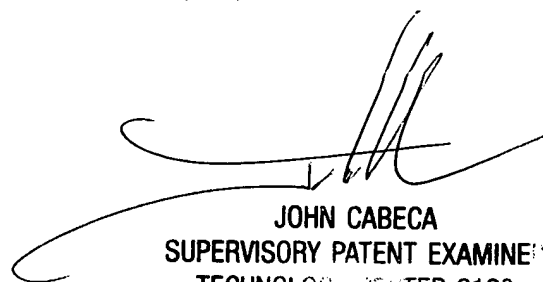
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Namitha Pillai whose telephone number is (571) 272-4054. The examiner can normally be reached on 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (571) 272-4048.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Namitha Pillai
Assistant Examiner
Art Unit 2173
March 28, 2005



JOHN CABECA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100